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POPULAR FALLACIES.

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THERE are three fallacies, not referred to in text-books on logic, but yet so common that all persons to a greater or less extent are deceived by them. They may be somewhat arbitrarily called the fallacy of the whole and the parts, the genetic fallacy, and the fallacy of the half truth.

I.

The first of these fallacies is a misapprehension of that familiar axiom, "the whole equals the sum of its parts." We imagine that this is true in every sphere of experience, but it is not. If our thought is concerned with magnitude, lines or surfaces, and if it is a matter of indifference as to the order in which one relates the separate parts, then the simple axiom holds; but otherwise we run into all kinds of error and absurdities. A watch ceases to be a watch when you have merely the separate parts before you. The sum of them will not mark the minutes and hours. The collection of parts is not the watch. For no chance arrangement of parts can produce a mechanism; it is not the sum, but the ordered connection of the parts which makes the watch, the engine or the machine. And, in the case of an organism whose parts are held together and coordinated by the mysterious bond of life, can we say the whole is equal to the sum of its parts? Try the experiment; analyze the plant, dissect the animal, and then essay a summation of the parts. We soon discover that it is an irreversible process. Either dissection kills that which it investigates, or that which it investigates is dead already. A living whole is never discovered by a mere putting together of its parts. Goethe long ago exposed this folly:

*"Wer will was Lebendigs erkennen und beschreiben
Sucht erst den Geist heraus zu treiben
Dann hat er die Theile in seiner Hand.
Fehlt leider! nur das geistige Band."*

The end of all knowledge is the discovery of this vital "bond," the grasping in a multiplicity of details the one idea which is the living principle of their connection. The discovery of facts which are not yet put together to form a whole is not knowledge. It is preliminary to knowledge; but to know means to interpret the accumulated facts, and to interpret them is to relate them to some significant whole. There are many to-day who insist that the investigator in the natural sciences, in political economy, in psychology should be solely a compiler of facts, that the man of theory should give way before the man of facts; for the fact is certain, the theory is uncertain, the fact is born of reality, the theory is spun out of mind. But every fact, it must be remembered, illustrates some theory, of which it is a particular instance. To understand a fact, there must be an appreciation of its relation to the universal truth which it reveals, and with which it is bound up by its unseen but "vital bond." The isolated fact, indeed, apart from its setting, has no meaning. The hand severed from the body is no longer a hand. The brain in the jar of alcohol is not a brain; it was once the centre of thought and feeling; it is now only a specimen; as a part of the organism it was everything, as a whole in itself it is nothing. Much exact scholarship gains the letter but loses the spirit of knowledge, because, while collecting the facts, it does not know how they hang together, or what they mean in the light of a larger whole.

On the other hand, if one part, however insignificant, be rightly interpreted, it will discover the whole. One drop in the test-tube, a single act of disloyalty in a friend, a glance of the eye, a gesture, a word too much or a word unspoken, and the whole story is told. The astronomer only needs to see how the arc begins to round in order to construct the complete orbit. The theory of reasoning rests upon this simple principle, that things are so bound together that a part may disclose the whole, as, when you pick up a single link, the entire chain comes with it. The prophet, for instance, is not one who in some mysterious manner sees into the future. It is the present into which the eyes of the seer must penetrate. He predicts the future only so far as it is wrapped up in the present. As Leibnitz once said,

“Every present is big with the future and laden with the past.” The veil is not between us and the future; it is between us and the present. We, dull of vision, fail to read the signs of the times. The parts we see, but we are not able to divine the whole.

So also in any group of men, in a clan, a tribe, a society, in church or in state, the whole is more than the sum of its parts. The parts may be seen, they may be counted. We find them in registers, in rosters, in tables of census statistics, and yet the communal spirit which makes for unity and solidarity is unseen. It is the *esprit de corps*, without which the body dies and returns to its elemental parts. And, within the still larger range which embraces the circle of mankind in general, the several parts are bound together as members one of another, because they are united in a common ancestry and a common destiny, a common weal or woe. The spirit of humanity makes all one.

It has often been said that the great man, the genius or the hero, lifts himself above the ordinary level of mankind, and that he in no sense belongs to the mass, but is as one dwelling apart, self-sufficient, fulfilling the law of his own being. But the great man, if truly great, belongs in a peculiar manner to his day and generation; if not, there is no arena wherein his powers may find a natural manifestation. No man attains a place in the world's history save through the part which he plays among his contemporaries and in his own setting. He must have the great heart and the great mind himself, and yet his following must, in some measure at least, possess the elements of greatness. No general could ever prove his greatness with a battalion of cowards. The great prophet must gather about him those who have not bowed the knee to Baal; or who would hear his message? Luther had the Protestants, Cromwell the Puritans, Napoleon his Imperial Guard, Washington the American patriots. The scholar writes for scholars; the man of letters for those who possess the responsive mind and taste. Behind the great masters of English there has ever been that great body of their fellows who

“Speak the tongue

That Shakespeare spake; the faith and morals hold
Which Milton held.”

II.

The second of these fallacies may be called the genetic fallacy—

the mistaken idea that, if we can only trace a thing back to its origin, we shall there, in that initial stage, find its complete explanation. This is the day in which the method of evolution prevails throughout every field of serious investigation. Back to beginnings! This is the cry on all sides, whether the investigation be that of an animal, of a religion or of a form of government. The original part, it is urged, is the key to all subsequent processes of development. But the original part by itself is never self-illuminating. Even though in our researches we have succeeded in discovering it, we are at a loss to interpret its significance. For much appears in any initial stage which, in the process of development, completely disappears; and much lies concealed which, nevertheless, contains the promise and potency of all that is to be. It is of the nature of a cause to hide itself. In this respect it resembles the Deity—because, perhaps, it too is in a sense creative. The complete nature of a cause can be revealed only through the whole course of the process of development which proceeds from it. If every cause manifested itself fully in its earlier stages, then all knowledge would be attained by simple observation, and it would be superficial at that; but it is not. You ask, what is the nature of the seed which I may chance to hold in my hand? I do not know; but I can discover it readily enough. Sow the seed in the earth, let it be warmed by the sun and wet by the rain, let it grow in the light and in the night, then will come a revelation of its nature in fruit and flower. The seed does not explain the plant; rather the plant explains the seed.

No more is man satisfied with that account of his nature which refers him to his beginnings, and traces his line of descent to certain "Simian ancestors of arboreal habit"; or, to go a stage farther in this regress, to the primal elements to which his organism may be reduced, the oxygen, nitrogen, hydrogen, carbon and what not of his ultimate origin. Is man, as we know him, as we know ourselves, satisfactorily explained by such beginnings? It must not be overlooked that, in that elemental stage, there must have been a potential factor which is not in any one of the original parts but pervades them all, which elevates the dust whence man arises and hallows it, which transforms the beast into the savage, and the savage into the civilized man. Call it reason, or spirit, or soul, what you will; it will never be revealed

at the beginnings of the process of evolution, but rather at its consummation. Explanation does not look backward to origins, but forward to the final results of the unfolding process. The process of development is always a process of revelation, but its beginnings always conceal more than they reveal. Man may have come from the ape, but he has come a long way.

Mr. Spencer finds the origin of religion in the early superstition of primitive man, the belief in ghosts, the disembodied spirits of heroes, feared, revered and finally worshipped, appeased by sacrifice, praised in song, in dance and prayer. But, here again, religion also is to be judged not by what it once was, but by what it has become and by what it promises to be. The early superstition does not explain the evolution of the religious idea in its long course of development through the ages; but the evolution of religion is rather the development of purer forms out of earlier perverted forms, it is the dying of superstition as the seed dies in the earth, generating that which is potentially in it, separating the essential from the unessential, the true from the false, a revelation of the inner significance behind the symbols of religion, of the inner spirit behind its external forms.

When we trace the course of any series of events backward to their starting-point, we unconsciously interpret the initial stage in the light of all we have gathered by the way in our return to it, and thus we are apt to attribute to the first term of a series a significance which is not its own. As in a mathematical series, so in any series of events, the first term has no meaning whatsoever unless we know also the law of the series, how the subsequent terms are related to the first and to each other in the manner of their formation. For this reason, we say that no history can be written by a contemporary. The current events show their surface significance only. That which is wrapped up in them will be revealed in time, and he alone who can read the course of their subsequent development is qualified to judge them critically.

III.

There is another error of judgment to which we are all liable; it is the fallacy of the half truth. This is a substitution of a part for the whole, and resting satisfied with it because it is thought to be the whole. Such a satisfaction proceeds usually from self-deception. It signifies a false mental attitude; and the disastrous consequence of such a deception is this, that one

is content with a fancied attainment when he should be restless with the fever of search. The tragedy of such a situation is not merely that the half truth is substituted for the whole, but that further inquiry is suspended, and that which should be a transition stage on the way of knowledge is complacently regarded as the journey's end. Thus we have partisanship in politics, bigotry in religion, the orthodoxy which regards every differing opinion as heterodoxy, the idealism that is unreal, and the realism which has no ideal, the egoism which recognizes no other, and the altruism which dissipates itself in service of others at the expense of the obligation owing to self. How easily we overlook that fundamental law both of knowledge and of life, the law of complementary adjustment, the fitting of the half truth to its other half, so that a balanced whole is the result. We gaze so obstinately at the one side of the shield that a shifting of the point of view never suggests itself. How, then, is one to know that the whole truth which he possesses is but the half truth and not the whole? Such a discovery comes only to him who has an open mind and a spirit of tolerance. The open mind is ever seeking a new point of view; the tolerant spirit is ever striving to put itself in a sympathetic attitude to opposing opinions, and this not after the manner of a weak concession, but in the interests of a critical inquiry after truth. For, suppose, upon a candid examination of an opinion which is opposed to the one we hold, we find something which we are constrained to acknowledge as true, then are we not warranted in concluding that it is the portion of truth which our opinion lacks and which is its natural complement? The adjustment of the one to the other must surely lead us to a deeper appreciation of the truth in its entirety. All progress in knowledge has been brought about by some such process as this—a series of successive adjustments arising out of conflicting opinions. How many controversies in religion, in politics or in philosophy have resulted in the revelation of a larger truth than either side alone had maintained. The moment any controversy appears to be so one-sided that the truth is wholly with the one and error is wholly with the other, our interest in it immediately ceases. It is in clash of opinion that truth is provoked; and it may well happen that the one who traverses our convictions may be, not so much an antagonist, as a collaborator in the field of research. JOHN GRIER HIBBEN.